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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sven K. Esche

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2909

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08/30/2004

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EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/954,994

Applicant(s)

ESCHE ET AL.

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 1/6/04 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of a device comprising a passive isolator with a nonlinear force-deflection characteristic and a non-linear spring as claimed in claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

*Examiner notes that Applicant shows in the drawings and describes in the specification that the non-linear spring comprises the isolator among other elements. The claim, however, suggests that the non-linear spring and the isolator are two distinct elements.*

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 1. The phrase "the system" in lines 2-3 from the bottom lack proper antecedent basis in the specification.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claim 2 rejected under 35 U.S.C. 102(a) as being anticipated by JP2000-291725 (JP '725). JP '725 shows in figure 1 a device for adaptive vibration attenuation comprising a passive isolator 14a with a nonlinear force-deflection characteristic as disclosed in line 3 of the novelty section of the English abstract and a mechanical actuator 22,28 which varies an operating point of the passive isolator along the force-deflection characteristic wherein the mechanical actuator is comprised of a coiled spring 28, a non-linear spring 14b and a means 22 for externally controlling a preload to the coiled spring whereby as the coiled spring force is varied pressure is transferred to the non-linear spring.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6361031 to Shores et al. in view of US Patent 5700000 to Wolf et al.

Shores et al. show in figure 1 a device for adaptive vibration attenuation comprising a passive isolator 22 with a force-deflection characteristic and a pneumatic actuator 44,62, and the vacuum actuated valves discussed in col. 2 lines 37-38 which varies the operating point of the isolator along the force-deflection characteristic wherein the pneumatic actuator comprises at least one upper pressure chamber 44 and one

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lower pressure chamber 32 wherein air pressure in the pressure chamber can be externally controlled as disclosed in col. 2 lines 31-39 and wherein the natural frequency of the system is regulated by applying pressure to the upper pressure chamber or the lower pressure chamber, particularly the upper pressure chamber. Examiner notes that “upper” and “lower” are relative terms and that for examining purposes the upper portions of the mount in figure 1 are shown in the area of element 14 and the lower portions of the mount are shown in the area of element 16.

Shores et al. do not disclose that the force-deflection characteristic of the passive isolator 5 is non-linear.

Wolf et al. teach in figure 6 and in col. 4 lines 30-47 the use of a vibration attenuation device comprising a passive isolator 2 with a non-linear force-deflection characteristic.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the passive isolator of Shores et al. to have been constructed such that it had a non-linear force-deflection characteristic, as taught by Wolf et al., in order to provide a means of allowing good damping and preventing shaking even at large amplitudes of perturbation as taught by Wolf et al. in col. 4 lines 43-45.

### ***Response to Arguments***

9. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments filed 6/23/04 have been fully considered but they are not persuasive. With regard to claim 2, Applicant argues that JP'725 fails to show a mechanical actuator. Claim 2 defines a mechanical actuator as being comprised of a coiled spring, a non-linear spring and a means for externally controlling a preload to the coiled spring. Examiner maintains that JP'725 shows a coiled spring 28, a non-linear spring 14b and a means 18,22 for externally controlling a preload to the coiled spring. As the coiled spring force is varied, pressure is transferred to the non-linear spring by way of the movement of bottom plate 16 relative to element 12. Accordingly, the rejections have been maintained.

#### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

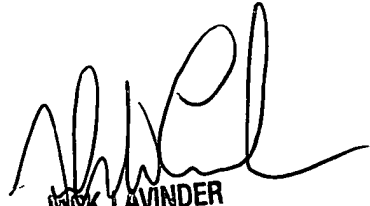
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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Wednesday-Thursday (5:30 AM-2:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb 8/25/04  
mmb  
August 25, 2004

  
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